

ABSTRACT OF THE DISCLOSURE

An engine cranking system includes an engine, a cranking motor coupled to the engine and a battery having first and second battery terminals. The first battery terminal is electrically coupled to the cranking motor and the second battery terminal is electrically coupled to a system ground. A capacitor includes first and second capacitor terminals. First and second electrical paths interconnect the first and second capacitor terminals, respectively, with the cranking motor and the system ground. First and second switches include first and second sets of switch terminals respectively. The first set of switch terminals is coupled between the first battery terminal and the cranking motor. A relay is included in one of the first and second electrical paths and has first and second control terminals. The second set of switch terminals is coupled between one of the first and second capacitor terminals and the second control terminal. The other of the first and second capacitor terminals is electrically coupled with the first control terminal. The relay is moveable between at least a closed-circuit position, in which the relay completes one of the first and second electrical paths, and an open-circuit condition, in which the relay interrupts one of the first and second electrical paths. In one embodiment, a running engine sensory component is coupled between one of the system ground and the first battery terminal and one of the first and second control terminals. The running engine sensory component maintains the relay in the closed-circuit position when the engine is running.